

City of Houston: ETHAN Telehealth Program supported by the 1115 Waiver

House Committee on Public Health, Interim Charge #2

Friday, October 15, 2020

Ongoing challenges faced by the COVID-19 pandemic have provided a substantial need for investing in telehealth infrastructure across the state of Texas. ETHAN is a program that provides telehealth services during emergency dispatch resulting in reduced overall costs for ambulances.

As background, Emergency Medical Service agencies transport thousands of patients within the United States via ambulance every day to over-crowded hospital emergency departments, regardless of the severity of the patient's problem. Many of these patients are non-emergent and could be treated in an alternative setting; however, today many people utilize the local 911 system and the hospital emergency departments, as they believe this is their only option for primary healthcare.

In 2014, the City of Houston Fire and Health Departments partnered to launch the ETHAN (Emergency Telehealth and Navigation) project where on-scene mobile technology is used to connect EMT's caring for these low-acuity 911 patients with emergency physicians who have access to primary care resources within the community. This community-based mobile integrated healthcare project, along with local and regional partnerships, agencies and collaborations ensured individuals who called 911 with non-emergency complaints would be triaged by telehealth emergency medical physicians who are immediately available and skilled at making rapid triage decisions. Patients who were assessed by the ETHAN physician and confirmed to be non-emergent could be scheduled to either a local Federally Qualified Clinic (FQHC), home care, primary care physician along with arranged transportation by a taxi cab, self-transport or no-transport. Patients were followed-up by the City of Houston Health Department navigators with a tool-box of more than 15 programs and services to assure person-centered care "right time and place" prescription. The friction-free emergency telehealth technology has been embraced as a prehospital productivity tool, effectively delivering no-wait emergency physician virtual visit in the out-of-hospital environment and providing alternate managed solutions of care.

The motivation for the ETHAN telehealth project was driven by the University of Texas, School of Public Health study, which estimated 40% of all emergency department visits are primary care related. Funding streams for ETHAN have varied, however from the onset of the partnership between city departments it has been funded by the 1115 Waiver and has demonstrated significant success in increasing EMS efficiency and quality of care; through reduced ambulance transports, reduced on-scene time and management of patients both on-scene and to non-traditional destinations. ETHAN has garnered local and national recognition as one of the most innovative large-scale telehealth solutions in modern EMS. To date, it is estimated that the overall healthcare savings by program cost avoidance utilizing ETHAN is over \$27 million dollars.

For more than 4 years, with an ever-increasing population of 2.3 million and greater than 300,000 calls for service, ETHAN has successfully delivered to more than 22,000 City of Houston residents and visitors. Over that time, an average of 15% of all ETHAN patients were dispositioned or managed away from the emergency department and 9 of every 10 patients avoided using the ambulance for transportation. With real time telehealth technologies, ETHAN provides the same exam room experience independent of

location and eliminates expensive hospital care to individual patient complaint types, with physician/patient care time of approximately 6 minutes.

As it stands, the ETHAN program could provide additional National Annual Medicare Cost Savings, as the ETHAN physician dispositions low-acuity patients to non-ambulance transportation. The ambulance cost of \$381,054,608 for 1,116,894 transports or \$341 per transport, would be reduced by 92% to \$32,110,702. Thus, ETHAN could add possible savings of \$348,943,906 or an overall 35% savings to the model.

In an ever-changing environment due to COVID-19, the need for telehealth has increased therefore investing in ETHAN is beneficial to both human lives and cost efficacy across the state of Texas.